

1. An apparatus for making a frozen food product comprising:

a substantially horizontal, elongate spindle having a lengthwise axis, a circumference,  
and a continuous, closed-loop track along the outer surface of the spindle;

a canister enclosing said spindle, said canister being adapted to hold said frozen food  
product;

a driving device, coupled to said spindle, for spinning said spindle around said  
lengthwise axis; and

a paddle wheel for mixing said frozen food product, said paddle wheel having a guide  
skate that extends into said track on said spindle and thereby guides the paddle  
wheel in a direction along the length of said spindle to mix the frozen food  
product when said driving device spins the spindle around said axis.

2. The apparatus of claim 1 wherein said paddle wheel also travels around the circumference  
of said spindle.

3. The apparatus of claim 1 wherein said paddle wheel surrounds said spindle.

4. The apparatus of claim 1 wherein said paddle wheel further comprises a plurality of  
staggered, outwardly extending paddles.

5. The apparatus of claim 1 wherein said paddle wheel further comprises a plurality of holes  
through which the frozen food product can flow.

6. The apparatus of claim 1 wherein said guide skate is free floating and wherein said paddle wheel further comprises a plug block for holding said guide skate.

7. The apparatus of claim 1 wherein said canister has an inner container and said paddle wheel has a circumference that fits snugly within said inner container.

8. The apparatus of claim 1 wherein said guide skate travels around the circumference of said spindle.

9. The apparatus of claim 1 wherein said paddle wheel reverses its direction of travel while said spindle continues to spin around said lengthwise axis in a single direction.

10. The apparatus of claim 1 wherein said canister further comprises a flux capacitor valve for permitting air to enter the canister during dispensing of the frozen food product.

11. The apparatus of claim 1 further comprising a refrigeration unit coupled to said canister.

12. The apparatus of claim 1 further comprising a removable dispensing block coupled to said canister.

13. A device comprising:

a substantially horizontal, elongate spindle having a lengthwise axis, a circumference,  
and a continuous, closed-loop, crisscrossed, recessed track along the outer  
surface of the spindle;

5 a canister enclosing said spindle, said canister having a cylindrical, substantially  
horizontal inner core for holding a frozen food mixture;

a refrigeration unit, coupled to said inner core, for maintaining said inner core at a  
temperature cold enough to cause said frozen food mixture to freeze;

a driving device, coupled to said spindle, for spinning said spindle around said  
lengthwise axis; and

10 a paddle wheel surrounding the circumference of said spindle, for mixing said frozen  
food mixture, said paddle wheel having a circumference that fits snugly against  
said inner core but that nevertheless can slide along said inner core, said paddle  
wheel also having a free-floating guide skate that extends into said track on said  
15 spindle and thereby guides the paddle wheel back and forth along the length of  
said spindle to mix the frozen food when said driving device spins the spindle  
around said axis.

14. The device of claim 13 wherein said paddle wheel also travels around the circumference  
20 of said spindle.

15. The device of claim 13 wherein said paddle wheel further comprises a plurality of staggered, outwardly extending paddles.

16. The device of claim 13 wherein said paddle wheel further comprises a plurality of holes  
5 through which frozen food ingredients can flow.

17. The device of claim 13 wherein said paddle wheel further comprises a plug block for holding said guide skate.

18. The device of claim 13 wherein said guide skate travels around the circumference of said  
10 spindle.

19. The device of claim 13 wherein said paddle wheel reverses its direction of travel while said  
spindle continues to spin around said lengthwise axis in a single direction.

20. The device of claim 13 further comprising a refrigeration unit coupled to said canister.  
15

21. A method comprising:

mixing food ingredients with a horizontal, elongate spindle and a paddle wheel that travels back and forth along a closed-loop track in said spindle via a freely rotatable guide skate; and

5 freezing said food ingredients to a desired degree by cooling a canister holding said food ingredients.

22. The method of claim 21 wherein said track is crisscrossed.

10 23. The method of claim 21 wherein said food ingredients comprises ingredients for making ice cream.

24. The method of claim 21 further comprising spinning said spindle so that said paddle wheel travels around a circumference of said spindle.

15 25. The method of claim 21 wherein said paddle wheel further comprises a plurality of staggered, outwardly extending paddles.

20 26. The method of claim 21 wherein said paddle wheel further comprises a plurality of holes through which said food ingredients flow.

27. The method of claim 21 further comprising spinning said spindle so that said guide skate travels helically around the circumference of said spindle.

28. The method of claim 21 wherein said paddle wheel reverses its direction of travel while said  
5 spindle continues to spin in a single direction.

29. A high-speed frozen food making device comprising:

a substantially horizontal, elongate spindle having a lengthwise axis and a continuous, closed-loop, crisscrossed track along the outer surface of the spindle;

a substantially cylindrical, substantially horizontal canister that encloses said spindle, said canister having a cylindrical, substantially horizontal, inner container for holding food ingredients, said canister having a front end, a back end, and a top portion, said canister also having a hole in said top portion so that said food ingredients can be poured through said hole into said inner container;

a refrigeration unit, coupled to said inner container, for maintaining said container at a temperature cold enough to cause said food ingredients to freeze;

an electric motor, coupled to one end of said spindle, for spinning said spindle around said lengthwise axis;

a paddle wheel surrounding said spindle and having outwardly-extending paddles for mixing said food ingredients, said paddle wheel having a plurality of holes for allowing said food ingredients to flow through said paddle wheel when said paddle wheel moves along the length of said spindle, said paddle wheel also having a circumference that fits snugly against said inner container of the canister but that nevertheless can slide along said inner container, said paddle wheel also having a free-floating guide skate that extends into said track on said spindle and thereby guides the paddle wheel helically around the spindle and back and forth along the length of said spindle to mix the food ingredients when said driving device spins the spindle around said axis; and

a dispensing block, removably coupled to said front end of said canister, for dispensing  
said food ingredients when said food ingredients have frozen to an appropriate  
desired degree.

5 30. The high-speed frozen food making device of claim 29 further comprising a flux capacitor  
communicating with the inner container of the cannister, the flux capacitor permitting air to  
enter the container when the food ingredients are dispensed through said dispensing block.

10 31. The high-speed frozen food making device of claim 29 wherein the dispensing block  
comprises:

a block attachment member removably attached to said front end of said canister, the  
block attachment member having a channel therein for receiving a dispensing  
shaft and a dispensing hole communicating between said channel and the inner  
container of the canister; and

15 a dispensing shaft slidably inserted into the channel of the block attachment member for  
selectively blocking and unblocking said dispensing hole, thereby permitting  
said food ingredients to selectively enter the block attachment member through  
said dispensing hole and be dispensed through said channel.